ISSN (print) 0093-4666 © 2015 Mycotaxon, Ltd. ISSN (online) 2154-8889

MYCOTAXON

http://dx.doi.org/10.5248/130.921

*Volume 130, pp. 921–924* *July–September 2015*

# Book reviews and notices

Else C. Vellinga (guest book review editor)

[1] *861 Keeler Avenue, Berkeley CA 94708 U.S.A.*

[*] Correspondence to: *bookreviews@mycotaxon.com*

Abstract— —Books reviewed include: General—California mushrooms. The comprehensive identification guide (Desjardin, Wood, & Stevens 2015.); *Basidiomycetes*—Atlas of the Chinese species of *Amanitaceae* (Yang 2015).

## General

**California mushrooms. The comprehensive identification guide.** By D.E. Desjardin, M.G. Wood, & F.A. Stevens. 2015. Timber Press Inc., 133 S.W. Second Avenue, Suite 450, Portland OR 97204-3527, <timberpress.com>. ISBN 978-1-60469-353-9. 560 p., over 700 colour photos. Price $60.

The state of California in the western United States of America is well known for its wide range of habitats and its rich biodiversity. Fungi in the state are not as well investigated as plants, and only a few field guides to the California mushrooms exist (Biek 1984; Arora 1986, 1991; Davis et al. 2012), this in contrast to a huge number of regional and statewide floras. This new book, California mushrooms, is a welcome up-to-date addition, and the authors should be congratulated on producing this beautiful well-executed book.

The contents of the book follow the familiar set-up of guides with an introduction in which the topic is introduced, an explanation of the way the book has been made, very useful introductions to taxonomy and nomenclature (why do names change?), mushroom ecology, and biology, and a few pages on edible and toxic mushrooms. Chapters on 'How to identify mushrooms' and 'How to use the book' are followed by the main part, 'The mushrooms'.

---

[*] Book reviews or books for consideration for coverage in this column should be sent to the address above OR to the *Editor-in-Chief* at editor@mycotaxon.com or 6720 NW Skyline, Portland OR 97229 USA.

650 species of fungi are well illustrated (each with one picture), described, and compared with species and other taxa that are or are not illustrated in the book. Keys to morphological groups, followed by more in-depth keys per group to species are, of course, present as well. The glossary of used terms, a list of plant names, references, a list of California mushroom clubs, photo credits, an index, and biographies of the authors follow the main part.

There are several things that make this book stand out among similar books in the USA.

Its large format (pages are 21 × 28 cm) means that the photos are also large, which is fantastic.

The descriptions are based on observations by the authors on material from California and surrounding areas; microscopic data were recorded by the first author mainly from material present in the Harry D. Thiers Herbarium or from recent publications from California. However, it is not clear to which vouchered specimen each photograph is linked. Most of the photos were taken in California.

The nomenclature is current, and a list of updates since the book's text was finished is posted on www.californiamushrooms.us/errata.html. In some cases the authors give provisional new combinations to indicate to which genus a species belongs according to the newest phylogenetic insights, and a number of as-yet unpublished new species names are also presented (e.g., in *Agaricus* where a monograph is expected to be issued soon). Indeed it is a challenge to write a book on California mushrooms, as it is very clear that many of the names generally used are not applicable in the state, but new names have not been proposed yet.

This is a beautiful book that introduces the most common and most commonly encountered species of northern California. The emphasis of the book is on the areas the authors have visited most: the San Francisco Bay region, Mendocino and the *Sequoia sempervirens* and *Picea sitchensis* forests in the northwest of the state, and the central part of the Sierra Nevada. The introduction is very helpful and informative, but is written for an audience with some background in biology. The emphasis in the keys and in the descriptions is on macroscopic characters, but in some cases microscopic characters are mentioned; unfortunately not all terms are included in the glossary (for instance, an explanation of the term 'broom cells' is lacking). For some groups, adding a microscopic character (or illustration thereof) in the key would make identification so much easier. The difference between *Laccaria* and the *Hygrophoraceae* is always hard for beginners, but with the addition of the spore ornamentation of *Laccaria* spores, distinguishing the two groups becomes a piece of cake. The same applies to the pink-spored gilled mushrooms where the different spore shapes of the *Entolomataceae* are mentioned in the key, but not illustrated. The species are arranged by general shape, not by their phylogenetic affiliations, so the gilled boletes stand in the middle of gilled mushroom species, and *Auriscalpium* finds its place with other species with a spiny hymenophore and not with its closest relatives in the *Russulales*. Only species that are fully treated in the book are keyed out, which limits the usefulness of the book. And although the number of species covered in the book is not small, many species are left out; the undoubtedly most species rich genus, *Cortinarius*, is represented by only 25 species, and *Pluteus* only by *P. leoninus* and three species in *P.* sect. *Pluteus*. The one real mistake I came across is in the placement of *Neolentinus*, which does not belong to the *Polyporaceae*, but is in the middle of the *Gloeophyllales* (Garcia-Sandoval et al. 2011). Here, the authors followed Index Fungorum, which also has not been updated to reflect the newest insights.

The photos are of good to high quality showing the mushrooms well. Of course some are not as typical as I would like them to appear (e.g., *Mycena haematopus* lacks the characteristic hanging pileus margin).

As I said, this is indeed a beautiful, well-illustrated, and informative book that definitely will be used widely, both in and outside California. Because of its size and weight (more than 2 kg), it will not fit in a pocket or backpack. But just leafing through it at home, or in the car, will be pleasure enough!

Arora D, 1986. Mushrooms demystified, 2nd Ed. Ten Speed Press, Berkeley.
Arora, D., 1991. All that the rain promises, and more. Ten Speed Press, Berkeley.
Biek, D., 1984. The mushrooms of northern California. Spore prints, Redding.
Davis RM, Sommer R, Menge JA. 2012. Field guide to mushrooms of western North America. California Natural History Guides 106. University of California Press, Berkely, Los Angeles, London.
Garcia-Sandoval R, Wang Z, Binder M, Hibbett DS, 2011. Molecular phylogenetics of the *Gloeophyllales* and relative ages of clades of *Agaricomycotina* producing a brown rot. Mycologia 103: 510–524. http://dx.doi.org/10.3852/10-209

## BASIDIOMYCETES

**Atlas of the Chinese species of *Amanitaceae*.** By Z.-L. Yang. 2015. Science Press, Beijing China. <www.sciencep.com>; ISBN 978-7-03-043627-6; 213 pages, many colour photos. Price US$ 53.00 [in Chinese with short introduction in English and Latin names].

China is a vast country with many different habitats and a very rich funga; in recent years it has become especially clear how rich the funga is. This book reflects the present knowledge of one mushroom family, the *Amanitaceae*, in China. 130 taxa representing the genera *Amanita* and *Limacella* are illustrated and described, with many photos per species to illustrate various developmental stages. The taxa are organized by genus and by section. An introduction to the important morphological characters and keys to all taxa treated in the book are given as well. Very importantly, a list of voucher specimens is provided, which enables verification if needed. A list of references is present as well.

This book is in the first place aimed at a Chinese audience to make clear which species are edible and which are deadly poisonous. For this reason the photos of taxa in the latter category are provided with a red warning sign.

Research of this family showed that many taxa occur in a white form besides the normally coloured specimens. Generalizations about species' distribution patterns are also shown to be often wrong; some European species, such as *Amanita spissa,* do occur in China, others, including *A. phalloides,* have not yet been found. And lastly, some species turned out to represent a complex of various taxa, as in the stunningly beautiful orange-capped *A. hemibapha.*

Some as-yet unnamed taxa are tagged with a provisional name, such as *A. pseudopantherina,* or number, e.g., *Amanita* sp. 10.

Although the text is in Chinese and most likely not accessible to most people outside China, the illustrations can easily be understood, and the diversity, beauty, and variability of the species is visible for all. This book gives a very good first introduction to the family in China. We are looking forward to more such publications, and to a follow-up of the present one.